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TITLE: Method for searching subscriber processing index using port identifier in v5.2 pstn protocol

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BASIC-ABSTRACT:

NOVELTY - A method for searching a subscriber processing index using a port identifier in a V5.2 Public Switched Telephone Network(PSTN) protocol is provided to use a V5.2 entity index and the port identifier in a V5.2 PSTN service which is a protocol between a local

exchange(LE) and an **access** network(AN) in a **wireless** local loop(WLL), to calculate a hashing value, and to search a subscriber processor data structure index for assigning a trunk in a hashing data structure.

DETAILED DESCRIPTION - If a telephone service is requested to a V5.2 entity of four V5.2 entities through an optional **port identifier,** a public switched telephone network(PSTN) exchange generates a hashing value by using an identifier of the V5.2 entity and the **port identifier**(ST11). The PSTN exchange applies a modula operation to the hashing value into '10000'which is a set key size, and generates a hashing key(ST12). The PSTN exchange checks whether the hashing key exists in a hashing key table(ST13) or not. If so, the PSTN exchange finds the first index of subscriber data structures linked to the hashing key(ST14). The PSTN exchange compares a hashing key which a subscriber data structure of the first index has with the hashing key generated in the step 'ST12'. If hashing keys are equal, the PSTN exchange returns the index of the subscriber data structure to quickly find a subscriber data structure index(ST15,ST16). If the two hashing keys are not equal, the PSTN exchange checks whether a subsequent subscriber data structure index linked to the first index exists in a subscriber data structure table(ST17) or not. If the subsequent subscriber data structure index does not exist, the PSTN exchange completes the process. If the subsequent subscriber data structure index exists, the PSTN takes the subsequent subscriber data structure index of the first index as the first index to go back to the step 'ST15'(ST18).

CHOSEN-DRAWING:　　　Dwg.1/10

TITLE-TERMS:　　　METHOD SEARCH SUBSCRIBER PROCESS INDEX PORT IDENTIFY
　　　　　　　　　　　PSTN PROTOCOL

DERWENT-CLASS: W01 W02

EPI-CODES: W01-B05; W01-B05A1B; W02-C03C3;

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                              │    시 작    │
                              └─────────────┘
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                                     ▼
         ┌──────────────────────────────────────────────┐
         │   V5.2 entity index와 PORTID를 이용하여       │── ST11
         │            hashing value 생성                 │
         └──────────────────────────────────────────────┘
                                     │
                                     ▼
         ┌──────────────────────────────────────────────┐
         │  hashing value를 설정된 키 size인 10,000으로   │── ST12
         │   modula 연산을 수행하여 hashing key 생성      │
         └──────────────────────────────────────────────┘
                                     │                    ST13
                                     ▼
              ◇─────────────────────────────────────────◇        아니오
              〈  해싱키 테이블에 그 해싱키가 존재하는가?  〉───────────
              ◇─────────────────────────────────────────◇
                                     │ 예
                                     ▼
         ┌──────────────────────────────────────────────┐
         │  그 해싱키에 링크(link)된 가입자 자료 구조중    │── ST14
         │          첫번째 index를 구함                   │
         └──────────────────────────────────────────────┘
                                     │
                                     ▼
                                                    ST15
              ◇─────────────────────────────────────────◇
              〈         구해진 첫번째 index에            〉    예
        ┌─────〈 해당되는 가입자 자료구조의 해싱키와 생성된 해싱키를 〉───────┐
        │     〈            비교하여, 동일한가?           〉              │
        │      ◇─────────────────────────────────────────◇              │
        │                          │ 아니오                              ▼
        │                          ▼              ST17         ┌──────────────────┐
        │     ◇─────────────────────────────────────────◇     │  가입자 자료구조  │─ST16
        │     〈         상기 첫번째 index의           〉      │   index를 반환    │
        │  ┌──〈 다음 가입자 자료구조 index가 가입자 자료구조 〉 └──────────────────┘
        │  │  〈         테이블에 존재하는가?            〉    아니오          │
        │  │   ◇─────────────────────────────────────────◇──────┐          │
        │  │                       │ 예                          │          │
        │  │                       ▼                             │          │
        │  │  ┌──────────────────────────────────────────────┐   │          │
        │  │  │ 가입자 자료구조 테이블에서 상기 첫번째 index의 │─ST18│          │
        │  │  │ 다음 가입자 자료구조 index를 첫번째 index로 취함│   │          │
        │  │  └──────────────────────────────────────────────┘   │          │
        │  │                                                      │          │
        └──┘                                                      ▼          ▼
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                                                            │     끝      │
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